To: CN=Ayn Schmit/OU=R8/O=USEPA/C=US@EPA[]

Cc: [] Bcc: []

From: CN=Gregory Oberley/OU=R8/O=USEPA/C=US

Sent: Fri 2/15/2013 5:32:15 PM

Subject:

<u>Luke Chavez-Pavillion.docx</u> <u>Pavillion gw samp memo.docx</u>

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Gregory Oberley Aquifer Protection Team US EPA Region VIII (EP-EPR) 1595 Wynkoop Street Denver, Colorado 80202

303-312-7043

----- Forwarded by Gregory Oberley/R8/USEPA/US on 02/15/2013 10:32 AM -----

From: Luke Chavez/R8/USEPA/US

To: Gregory Oberley/R8/USEPA/US@EPA

Date: 02/15/2013 10:12 AM

Subject: Fw: Pavillion SAP ready to ship for your review

FYI

Luke D. Chavez, Environmental Engineer
Exercise Coordinator - Emergency Response and Preparedness (ERP)
US EPA Region 8
1595 Wynkoop St.
Denver, CO 80202
303.312.6512 office
720.320.6250 cell

---- Forwarded by Luke Chavez/R8/USEPA/US on 02/15/2013 10:11 AM -----

From: "Thiesse, Mark" <mthies@wyo.gov>

To: Gregory Oberley/EPR/R8/USEPA/US@EPA, "Frederick, Kevin" <kfrede@wyo.gov> Cu: Luke Chavez/EPR/R8/USEPA/US@EPA, "O'Connor, James" <joconn2@wyo.gov>

Date: 02/02/2009 01:28 PM

Subject: RE: Pavillion SAP ready to ship for your review

Thanks Greg - I could use two here - one for me and one for Jim O'Connor who will be doing most of the field work.... I think anyhow. So please send two - thanks! And let me know about a meeting. See ya Mark

Mark Thiesse WDEQ/WQD 510 Meadowview Drive Lander, WY 82520

----Original Message-----

From: Oberley.Gregory@epamail.epa.gov [mailto:Oberley.Gregory@epamail.epa.gov] Sent: Monday, February 02, 2009 1:24 PM To: Frederick, Kevin; Thiesse, Mark

Cc: Chavez.Luke@epamail.epa.gov

Subject: Pavillion SAP ready to ship for your review

Hi Kevin and Mark, Luke has copies of the SAP for you to review. However, we need addresses to mail them to - I figured we send one to each of you. If you need an additional copy let me and Luke know by responding to this email. Don't forget to include your address.

Thanks

gregory

Gregory Oberley Ground Water Team Coordinator US EPA Region VIII (EP-EPR) 1595 Wynkoop Street Denver, Colorado 80202

303-312-7043

---- Forwarded by Gregory Oberley/R8/USEPA/US on 02/15/2013 10:32 AM -----

From: Luke Chavez/R8/USEPA/US

To: Gregory Oberley/R8/USEPA/US@EPA

Date: 02/15/2013 10:12 AM

Subject: Fw: Comments on Pavillion Work Plan

FYI

Luke D. Chavez, Environmental Engineer
Exercise Coordinator - Emergency Response and Preparedness (ERP)
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---- Forwarded by Luke Chavez/R8/USEPA/US on 02/15/2013 10:12 AM -----

From: "Thiesse, Mark" <mthies@wyo.gov>
To: Luke Chavez/EPR/R8/USEPA/US@EPA

Cc: Gregory Oberley/EPR/R8/USEPA/US@EPA, "Frederick, Kevin" < kfrede@wyo.gov>, "O'Connor, James"

<joconn2@wyo.gov>

Date: 02/12/2009 02:57 PM

Subject: Comments on Pavillion Work Plan

Hello Luke, attached are some comments on the work plan. We are sending them via email due to short turn-around time. We appreciate the opportunity to comment.

Please give me a holler if you have any questions.

Thanks Mark

Mark Thiesse West District Supervisor WQD/Groundwater Section 307/335-6959 mthies@wyo.gov

----- Forwarded by Gregory Oberley/R8/USEPA/US on 02/15/2013 10:32 AM -----

From: Luke Chavez/R8/USEPA/US

To: Gregory Oberley/R8/USEPA/US@EPA

Date: 02/15/2013 10:13 AM

Subject: Fw: Pavillion Groundwater Sampling Plan

FYI

Luke D. Chavez, Environmental Engineer
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From: <sbabits@wyoming.com>

To: Luke Chavez/EPR/R8/USEPA/US@EPA

Cc: Gregory Phillips/R8/USEPA/US@EPA, <daragon@wyoming.com>

Date: 02/19/2009 05:06 PM

Subject: Pavillion Groundwater Sampling Plan

Luke,

I have looked at the EPA sampling plan and have a few comments, see below. I have also attached a memo from Don Aragon with additional comments from the WREQC staff and consultants.

- 1. There may be other potential sources of domestic well contamination besides the oil and gas activities targeted by the workplan. I saw pesticides/PCBs in the list of analytes, but I would add some others. Nitrates is a good indicator of contamination from surface sources due to poor well seal. All groundwater samples should be analyzed for major ions (calcium, carbonate, chloride, sulfide, etc.) and TDS, so that samples from different wells and aquifers can be characterized and compared. Also, there are many types of bacterial contamination that can cause foul odors and taste in drinking water. Also, the WY DEQ is investigating groundwater contamination from old production pits.
- 2. The proposed background sample from the pavillion municipal well may be from a different aquifer and may or may not be representative of the background (i.e., pre-contaminated) water quality in specific domestic wells.

3. I am not familiar with the SRB by BART analysis, but does this only detect SRBs? and if so there could be other types of bacterial contamination present causing odor/taste problems.

Thanks for your consideration of these comments.

Steve Babits, P.G.
WREQC Groundwater Consultant
----- Forwarded by Gregory Oberley/R8/USEPA/US on 02/15/2013 10:32 AM -----

From: Luke Chavez/R8/USEPA/US

To: Gregory Oberley/R8/USEPA/US@EPA

Date: 02/15/2013 10:17 AM

Subject: Correspondence with WREQC and WYDEQ for Pavillion

Hey Greg - I sent you three emails showing the correspondence with WREQC and WYDEQ regarding getting their comments and incorporating them into our Ph1 sampling in March 2009. Hope that helps.

Have a good weekend.

Luke

Luke D. Chavez, Environmental Engineer
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